Company profiles



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A Bruce Company blower truck, used to apply grass seed, compost and fertilizer for new lawns. The Bruce Company composts municipal yard waste and construction wood scrap. Photo courtesy Bruce Company.

The Habitat for Humanity of Dane County ReStore in Madison sells donated building supplies at a reduced cost and uses the proceeds to help fund Habitat for Humanity projects. Photo by Sarah Murray.

The corporate headquarters of Plymouth Foam Incorporated in Plymouth, WI. Plymouth Foam uses recycled expanded polystyrene (EPS) foam in many of its products.

Photo courtesy Plymouth Foam.

Printpack Inc. in Rhinelander manufactures "flexible packaging," such as wrappers for candy bars and ice cream treats. It recycles scrap plastic film from its manufacturing process. Photo courtesy Printpack Inc. Faherty Inc. is a familyrun recycling and solid waste service provider in southwestern Wisconsin, bringing recyclables collected curbside to its Platteville processing facility. Photo courtesy Faherty Inc. Georgia-Pacific's Broadway paper mill in Green Bay, the world's largest tissue recycling and production facility and has more than 1,700 employees.

Photo courtesy Georgia-Pacific.

The Bruce Company of Wisconsin, Inc.



Middleton, WI

ard waste and wood scrap helping new lawns grow? That's what The Bruce Company decided to make happen.

The Madison-area landscaping firm is taking branches, grass clippings and other yard waste from nine southcentral Wisconsin communities and turning them into new lawns that grow faster and require fewer chemical treatments than typical turf.

Municipalities pay the company to receive the yard waste they collect at one of its three composting sites in the Madison area, each with a 15,000–20,000 cubic yard capacity. The program started in 2003, after one of the municipalities approached Bruce Company about handling the yard waste it was collecting.

"There's quite a bit more to [composting] than heaping leaves in a pile and letting them rot," Altwies said.

It takes anywhere from four to eight months to produce a batch of compost from the materials, depending on the season, according to James Altwies, the company's environmental initiatives coordinator. The finished product is primarily used in the company's landscaping business, though some is also sold to contractors or through its Middleton retail store.

In its landscaping business, Bruce Company mixes the compost with grass seed, fertilizer and a stabilizing

Quick facts: The Bruce Company

Recycled materials used: yard waste,

construction wood scrap **Recycling start date:** 2003

Number of employees: 600+ overall; 10-14

seasonally working with compost **Contact:** James Altwies, 608.836.7041 ext. 344, jaltwies@bruceco.com

Web site: www.bruceco.com



A batch of The Bruce Company's Red B Elite Compost is screened for a second time. The compost is used as a potting medium and topdressing for grass. Photo courtesy Bruce Co.

polymer and applies it to a lawn site with a blower truck. Using this method allows turfgrass to grow 60–70% faster than a traditional lawn, according to Altwies. He estimated that the firm had created approximately 1,000 lawns this way over the first two years of the program.

Altwies said the landscaping firm emphasizes quality control in its composting process, including ensuring a proper balance of source materials, which is important for achieving a good chemical and nutrient balance in the finished product. "There's quite a bit more to it than heaping leaves in a pile and letting them rot," he said, noting that one of the company's challenges is educating the public about the composting process.

In addition to the municipal yard waste, the company accepts wood scrap from construction projects at no cost, taking in about 1,000 cubic yards of the wood per week. "It seems like we can never get enough of that kind of stuff," Altwies said.

Altwies said two of Bruce Company's three composting facilities are currently running close to capacity, and the company hopes to expand its efforts in the future. "We're definitely looking to grow this program," he said.



Cascade Asset Management, LLC

Madison, WI

here's a gold mine of commodities buried beneath the circuits and switches of old computers and other electronic equipment. Literally. That's where Cascade Asset Management, LLC comes in.

Cascade is an electronics asset management and recycling company that demanufactures or breaks down old electronic equipment to extract its valuable parts for resale. The company also refurbishes some of the old computers for resale.

"Since 2003, there's been a 200% to 300% increase in value for our recyclable commodities," Peters-Michaud said.

"Our motto is, 'We cascade IT equipment to the next best use," said Cascade CEO Neil Peters-Michaud.

"Since 2003, there's been a 200% to 300% increase in value for our recyclable commodities such as circuit boards with precious metals, steel, copper wire and engineered plastics," Peters-Michaud said. The materials go to local processing companies and to smelters as far away as Europe.

"There's a very, very strong market for our mate-



Computer inventory at Cascade's Madison facility. Photo courtesy Cascade Asset Management.

Quick facts: Cascade

Recycled materials collected: computers

and other electronics equipment

Recycling start date: 1999 Number of employees: 65

Contact: 1.888.222.8399 or 608.222.4800,

info@cascade-assets.com

Web site: www.cascade-assets.com

rials," Peters-Michaud said. "There's a lot of competition to buy. We added a third shift in May to handle all the growth and demand."

One-third of Cascade's equipment is refurbished for re-sale, Peters-Michaud said, and ends up with wholesale and individual customers all over the world. Cascade has an online store to help market the equipment.

Cascade guarantees its customers data security by destroying old data stored on computer hard drives with its in-house shredder and electronic wiping system. After processing, it issues a Certificate of Destruction.

Cascade has been collecting, processing and refurbishing old computer equipment—plus other electronics such as stereos, cell phones and electronic medical testing equipment—since April 1999. It currently employs 65 people, and gathers old electronics from sources all over the United States and even Toronto.

"Over 75% of our volume comes from the health care industry (hospitals in Wisconsin and across the U.S.), financial and insurance institutions (banks) and large Fortune 500 corporate headquarters," Peters-Michaud said.

Peters-Michaud emphasized that the electronics recycling industry is a strong and growing sector that provides lots of jobs. "The three areas of job growth—recyclers, distributors and manufacturers—create a good tax base for the state of Wisconsin," he said. "This industry is also great for the environment."

CBT Wear Parts, Inc.

Richland Center, WI

ould waste from food processing plants be an alternative energy source? One Wisconsin company is trying to find out.

CBT Wear Parts is one of just a handful of companies in the United States making replacement parts for recycling machinery such as plastic shredders and glass crushers. It got its start in the late 1980s manufacturing parts for yard waste composting machinery. Over the years, it has worked to improve the durability of the parts using special coatings and alloys.

Now, according to president Mark Heffernan, the company is branching out with a vision of the future in which renewable energy technologies can be paired up to reduce waste and produce energy. "We think that by partnering these technologies in the world of renewable energy, they can help each other," Heffernan said.

Digesting waste could generate 2–10% of a food processing plant's energy needs.

The company's latest initiative has been to develop a High Solids 2-Phase Anaerobic Digester that has the potential to digest food waste on a large scale while generating renewable energy in a cost-effective manner.

Like composting, digestion is a process that decomposes organic matter. Unlike composting, it does this without oxygen and produces methane, which can be converted to heat or electrical energy, as a byproduct.

Heffernan said one of the major challenges in digesting food waste is its high percentage of solid content compared with other digestible materials. Currently, food waste must be diluted with large amounts of water, leading to high costs for composting on a large scale.

CBT is preparing to pilot-test the digester in Milwaukee with Growing Power, a nonprofit that operates a greenhouse as an urban agriculture demonstration. The digester will process 2 to 5 tons of food waste per day. Methane from the process will help heat the







greenhouse, and the nutrient-laden water the digester produces will help fertilize the greenhouse plants.

If CBT's process works, Heffernan said, food processing plants and other facilities with high volumes of food waste could digest the material on-site and generate renewable energy in the form of methane, a byproduct of the digestion process. He estimated a food processing plant could generate 2 to 10% of its energy needs this way.

While success is not guaranteed, Heffernan is already looking toward future applications, such as pairing the digester with ethanol production plants to digest their leftover corn byproducts. "There are a lot of places to go with this," he said.

Quick facts: CBT Wear Parts, Inc.

Recycling products manufactured:

replacement parts for glass-crushing, plastic-shredding, asphalt/concrete-crushing and composting machinery

Recycling manufacturing start date: 1988

Number of employees: 16

Contact: Mark Heffernan, 608.538.3290



CRT Processing Corporation

Janesville, WI

B usiness is good, according to Jim Cornwell, director of CRT Processing Corporation. "Since starting this business in February 2004, we've grown to 89 employees processing 1.5 million pounds of electronic equipment per month. We're trying to hold on and steer the course of this business!" he said.

CRT is a recycling company that processes electronic equipment, such as computer monitors and other peripherals, TVs, photocopiers,, cell phones and more.

"We receive electronic equipment from all over the U.S.," Cornwell said. "About 50% of our equipment comes from other recycling companies needing further processing, and 50% from corporations and institutions."

CRT's 89 employees process 1.5 million pounds of electronics each month.

Some equipment is repaired and refurbished. Outdated equipment is demanufactured. Electronic components are separated into glass, metals and plastics. In particular, cathode ray tubes (CRTs) are converted into reusable cullet—the raw material for glass—and sold to glass manufacturers around the world.

Cornwell said 93% of what the company receives is end-of-life equipment that is processed to recover individual components. Customers for its various separated components include Samuels Recycling Company (for

Quick facts: CRT Processing

Recycled materials used: computer monitors and other peripherals, TVs, cell phones, other electronics

Recycling start date: 2004 Number of employees: 89

Contact: James "Jim" Cornwell, 608.754.3400

Web site: www.crtprocessing.com



Workers process electronics received at the CRT Processing facility in Janesville. Photo courtesy CRT Processing Corporation.

metal recycling), and Asahi Corporation and L.G. Phillips Displays (for glass recycling). In addition, it sells to several plastic recyclers around the country who re-melt and regrind the plastics or blend them with other raw materials.

CRT Processing also provides asset management for hard drives. Cornwell described the three major options for data security as:

- 1. An electronic data wipe of information from hard drives using specialized software following U.S. Department of Defense standards.
- 2. A Degaussing system, which uses powerful magnets to destroy the hard drive and its data..
- 3. A shredder system, which shreds the hard drive into ½-inch pieces.

The company's biggest challenge, according to Cornwell, comes from businesses and brokers who send obsolete electronic equipment overseas, where the rules of recycling, data protection and proper waste management do not apply. "We're trying to educate the public on the hazardous materials contained in electronic equipment and the dangers posed if it is improperly disposed of," Cornwell cautioned. "When businesses send their equipment overseas, they lose all control over their business data and how the waste is managed."

Faherty Inc.

Platteville, WI



Based in Platteville, the business operates a materials recovery facility (MRF) and solid waste transfer station and provides waste and recycling pickup services to several municipalities and businesses in the surrounding counties. The company has 10 employees in its recycling department, and recycling and waste reduction accounts for roughly 40% of its business.

Since the landfill it uses is a 230-mile round trip away in the Quad Cities, Faherty said it makes business sense to divert all he can from the landfill. The company deals both directly with end users of recycled products and with brokers to market cardboard, paper, plastic, metals, glass, electronics, tires and other materials.

"I don't really ever have a problem finding a home for materials we collect," Faherty said. He said markets have been improving for some materials, such as



Trucks bring materials collected from curbside recycling to be sorted and processed at Faherty Inc.'s Platteville facility. Photo courtesy Faherty Inc.



Quick facts: Faherty Inc.

Recycled materials collected: paper, cardboard, plastics, metal cans, electronics, fluorescent bulbs, scrap metals, tires, appliances, pallets

Recycling start date: 1990

Number of employees: 10 in recycling dept. Contact: Ed Faherty, 800.848.4591 (phone), 608.348.6155 (fax), edfaherty@yousq.net

plastics, and that the fact that his company still collects source-separated material (rather than the "throw-it-all-in" collection method (known as single-stream collection increasingly used by larger haulers) helps in some markets because there is less contamination.

"I don't really have a problem finding a home for the materials we collect," Faherty said.

Faherty Inc. also works with its customers to find markets for more specialized materials, such as plastic bags used for packaging by the Lands' End distribution center in Dodgeville. It will soon have a staff member accredited by WasteCap Wisconsin in construction and demolition (C&D) waste management and recycling.

As of March 2006, Faherty said the company was serving 24 municipalities and 800 commercial clients. While the company is only handling about half the material it could in its facility, he said Faherty Inc. is aiming for "controlled growth." Faherty noted that the company does not have an active sales staff in most of the area it serves and does not try to undercut competitors in price. "We want people to select us on reputation and establish a relationship based not on price but on service," he said. \blacksquare



Georgia-Pacific

Green Bay, WI

eorgia-Pacific (GP) offers a number of products that contain recycled fiber or are made from 100% recycled fiber "We've been able to turn our recycled paper stream into higher quality consumer products—like softer,

> stronger, whiter toilet paper for instance," said Ken Graves, the company's quality assurance manager, and Mike Moore, environmental engineer.

GP is a leading manufacturer of several well known paper products, such as Mardi Gras napkins, Soft 'n Gentle toilet tissue and So-Dri paper towels. A majority of its Green Bay operations' products are made with recycled fibers from waste paper. Its Broadway paper mill in Green Bay, which employs more than 1,700 people, is the world's larg-

est tissue recycling and production operation, with 700,000 tons of waste paper processed per year.

Georgia-Pacific's Broadway mill in Green Bay is the world's largest tissue recycling and production operation.

Graves and Moore said the company's products are available in a number of retail venues, ranging from grocery stores to warehouse clubs to mass retailers. The company also supplies tissue products for hotels, restaurants, stadiums and other public areas. Graves and Moore said the company also has a presence in Europe, Mexico and Canada.

GP has one of the largest paper processing/recycling plants in the United States, the Ecosource facility. Ecosource employs more than 70 workers

Quick facts: Georgia-Pacific

Recycled materials used: recovered paper

fiber, plastic packaging wrap **Recycling start date:** 1930s

Number of employees: More than 1,800 at

Broadway and Ecosource facilities

Contact: Mary Jo Malach, 920.438.2949,

MaryJo.Malach@GAPAC.com
Web site: www.gpgreenbay.com

who sort and process 100,000 tons of commercial grades of waste paper per year for many paper mills throughout Wisconsin and the world.

The source for most of the mills' raw materials is pre- and post-consumer waste paper collected from recycling efforts in local counties, municipalities, businesses, etc. Pre-consumer paper comes from printed books, magazines and papers that never made it to the marketplace.

GP began using wastepaper to make products back in the 1930s. Graves and Moore said getting enough of the waste paper material is a challenge. "We could use more," they said.

In addition to paper products, GP has also been

successful at recycling the

poly-wrap and stretch-wrap used to package its paper products, which may become slightly damaged in the packaging process. "We've found there's a good market for this," Graves and Moore said.

